

REMARKS

Claims 1-64 are pending. Claims 5, 7, 18, and 21 are amended. Claims 25-64 are new. No claims are cancelled.

Claim 21 is amended to improve readability. The amendment to claim 21 is unrelated to any rejection, and does not narrow the claim.

I. DRAWINGS

FIG. 1B is amended to show 206B and 206C, in agreement with page 6, line 22, of the specification.

II. SPECIFICATION

The Office Action objects to the specification. The specification and drawings are amended herein to correct informalities. All references to “222” have been reviewed, and where appropriate have been amended to recite “Directory 222” or “Data Store 212 of Name Space Mapping Service 210”. Additionally, TIB/RENDEZVOUS is now capitalized and accompanied with the generic descriptive language “(an event bus software)”. Additionally, the informalities in the specification related features 206B and 206C are remedies by the amendments to FIG. 1B. In view of the above, the objection to the specification should be withdrawn.

III. REJECTIONS BASED ON 35 USC 112, SECOND PARAGRAPH

The Office Action rejected claims 2-20 as failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention.

The Office Action pointed out specific issues regarding the use of “a” in stead of “said” or “the” in front of various terms used in claims 5, 7, and 18. Accordingly, claims 5, 7, and 18 are amended herein to correct these deficiencies.

The Office Action also requested that the Applicant replace “A method as recited in” with “The method recited in” in each of claims 2-20. This requirement is unnecessary and unsupported. Each claim in a patent recites a separate invention for the purpose of infringement and novelty. See *Gould v. United States*, 579 F.2d 571, 576, 195 USPQ 112 (Ct. Cl. 1978)(“important to keep in mind tha teach claim of a patent is a separate and distinct invention”); *Rutger, The University of New Jersey v. United States*, 51 USPQ2d 1642, 1643 n.1 (Ct. Cl. 1998). Each dependent claim recites a separate invention. The rules and the MPEP have not requirement for starting a dependent claims with “The” instead of “A”. Thus, starting each claim with “A method” is proper.

Further, an alleged or actual lack of antecedents does not in and of itself render a claim indefinite. Specifically, MPEP 2173.05(e), p 2100-205 states,

Obviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992) (“controlled stream of fluid” provided reasonable antecedent basis for “the controlled fluid”)... See *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359, 61 USPQ2d 1216, 1218-19 (Fed. Cir 2001) (holding that recitation of “an ellipse” provided antecedent basis for “an ellipse having a major diameter” because “[t]here can be no dispute that mathematically an inherent characteristic of an ellipse is a major diameter”).

Similar to *Ex parte Porter* or *Bose Corp v. JBL, Inc.*, the scope of claims 2-20 can be reasonably ascertained, because “A method as recited in claim 1” must mean a method including all of the limitations of the method of claim 1. Thus, the claims comply with 35 USC 112, second paragraph, the under 35 USC 112 should be withdrawn. Reconsideration is respectfully requested.

IV. REJECTIONS BASED ON 35 USC 102 AND 103

Claims 1-8 and 15-24 are rejected under 35 USC 102(e) as allegedly anticipated by Amberden (US Published Patent Application No. 2002/0103818).

Claims 9-11 are rejected under 35 USC 103 as allegedly unpatentable over Amberden in view of Official Notice.

Claims 12-14 are rejected under 35 USC 103 as allegedly unpatentable over Amberden in view of Hughes Aircraft Company (PCT International Publication No. WO 95/14266, referred to herein by the inventor’s last name “Hayes”).

A. INDEPENDENT CLAIMS 1 AND 21-24

Claim 1 recites

A method of automatically subscribing a network device to a plurality of events applicable to a logical group of which the network device is a member, comprising the computer-implemented steps of:
creating and storing a mapping that associates a plurality of network devices with the logical group and that associates the logical group with one or more events that can pass over an event bus to which the network device is logically coupled....

Claims 21-24 have similar recitations. Claims 1 and 21-24 recite a method or apparatus for subscribing a network device to a plurality of events, while in contrast Amberden discloses an information repository system (see the title, for example). An information repository

system is used for storing data, and retrieving the data being stored. Additionally in a repository system a user may need to search for data to find the data desired to be retrieved. In contrast, a method of subscribing is a method for setting up a subscription. In a subscription, the subscriber automatically receives information, without having to search for it or retrieve it. Amberden does not disclose a subscription system.

Although Amberden refers to various “groups”, the groups of Amberden are unrelated to the groups recited in the Applicants’ claims. Specifically, paragraph 0152 states,

[0152] FIG. 7 details the preferred embodiment for the stream record that is implemented in the stream table. The definition of the stream table is part of the repository database schema. ***There are ten groups of table fields in the stream table.*** These groups are called Attribute Groups. They are: Identification, Date, Ownership, Link, Access, Disposition, Metering, Type, Location, and Name. These groups are typical of the types of groups employed in the stream record, but this list of groups is not an exhaustive list of potential stream attribute groups (emphasis added).

Thus the groups of Amberden are groups of table fields, while in contrast the claimed “logical groups” are “groups of network devices”.

The Office Action states, “Amberden teaches...(pg 1, [0012]; pg 5 [0066])”, while repeating the above claim language for the description of what paragraphs 0012 and 0066 show. The Applicants disagree; paragraphs 0012 and 006 are unrelated to the above-recited portion of claim 1 and the corresponding portions of claims 21-24. Amberden’s paragraph 0012, recites

[0012] U.S. Pat. No. 6,012,067 issued on Jan. 4, 2000 and is entitled Method and Apparatus for Storing and Manipulating Objects in a Plurality of Relational Data Managers on the Web. The '067 patent describes representing and manipulating heterogeneous objects in relational databases over the internet. Objects include business logic applied to query results on other multimedia web objects, like text, audio, or video. ***This is a very rudimentary database infrastructure. It ignores the whole ability and notion of using a RDMB to manage metadata.*** The '067 patent is also narrowly focused on object oriented programming and CORBA...(emphasis added).

Paragraph 0012 is part of Amberden’s prior art section, about which Amberden states,

[0009] In general, *the references discussed below are only relevant herein in minor aspects*. The references cited and described below typically have some interesting data management item, or some metadata method, or document organization scheme that may describe features that could be alternatively or in combination used with elements of the preferred embodiments described below. For this reason, all of the references cited in this section are hereby incorporated by reference into the detailed description of the preferred embodiment below. Some features of these references are described in summary below:...(emphasis added).

However, Amberden never explained which elements could be used in combination with or could be substituted with US Pat. No. 6,012,067. Further, one of ordinary skill in the art would have been discouraged from using US Pat. No. 6,012,067 in combination with Amberden's system as a result of Amberden's comments state that this art is "only relevant herein in minor aspects" and "This is a very rudimentary database infrastructure. It ignores the whole ability and notion of using a RDMB to manage metadata."

In paragraph 0012, Amberden's characterization of US Patent No. 6,012,067 is a method or apparatus for representing and manipulating heterogeneous objects in relational databases over the Internet. There is no disclosure in paragraph 0012 of "network devices". Additionally there is no mention of a subscription service, "a plurality of events", "logical groups", or a "mapping" as recited in claim 1. (Some non-limiting examples of events may be the sending of the word of the day or of a news web page for this week.)

Amberden's paragraph 0066 discloses managing data by storing file data and database data. The file data and database data are then indexed according to a typing that includes a storage class that includes a general and specific typing. Entries for the file data and database data are stored in the same stream table. However, paragraph 0066, even if somehow combined with paragraph 0012, does not disclose a "network device", "a plurality of events", or "logical groups".

Consequently, paragraph 0066 and 0012 do not disclose or suggest "a plurality of events applicable to a logical group" or "a logical group of which the network device is a

member”. Similarly, paragraph 0066 and 0012 do not disclose or suggest “subscribing” and therefore do not disclose or suggest “automatically subscribing a network device to a plurality of events”. In view of the above deficiencies, paragraph 0066 and 0012 cannot disclose or suggest “a mapping that associates a plurality of network devices with the logical group and that associates the logical group with one or more events”. Additionally, there is no disclosure of the claimed “event bus”.

Claims 1, 22, and 24, further recite, “receiving a device identifier of one of the network devices in the logical group”. Claim 23 has a similar recitation. Regarding this paragraph, the Office Action states, “Amberden teaches...(pg 7, [0148], [0149])”, while repeating the above claim language as the description of what paragraphs 148 and 149 show. The Applicants disagree; paragraphs 0148 and 1049 are unrelated to the above paragraph of the claim. Paragraphs 0147-0149 describe tablespaces that are associated with streams and part of FIG. 6, which includes a schema including three types of tables. One of the types of tables is a stream table, which includes a stream entry and data records joined together by a shared Stream Identification Number. However a stream identification number is not a device identifier. A stream identifier identifies a stream of data, and a device identifier identifies a device. There is no other disclosure or suggestion of a device identifier or of “network devices” that belong to “logical groups”.

Consequently, paragraphs 0148 and 0149 do not disclose, “receiving a device identifier of one of the network devices in the logical group”, in.

Claims 1, 22, and 24 further recite,

receiving an event that is among the one or more events that are in the mapping;
based on the mapping, sending information to the network device that causes the
network device to receive all events that are associated in the mapping with
the logical group in which the network device participates.

Claim 23 contains similar recitations. Regarding each of the above two paragraphs of claims 1, 22, and 24 and the corresponding portion of claim 23, the Office Action states “Amberden teaches...(pg 9, [0189], [0190]; pg 11, [0213],[0214])”, while repeating the above claim language as the description of the what paragraphs 0189, 0190, 0213 and 0214 show. The Applicants disagree; paragraphs 0189, 0190, 0213, and 0214 are unrelated to the above lines of claims 1, 22, and 24 and the corresponding lines of claim 23. Paragraphs 0189 and 0190 appear under the heading “Built-in Types”, and thus describe built-in types. The built-in types are used for attaching additional data to the stream. The built in types include labels, folders, and attributes. Folders and labels may be used to attach additional information to a stream and used for categorizing and searching the data. There is no discussion in paragraphs 0189 and 0190 of “events”, “receiving events”, “sending information”, a “mapping”, or “network devices”.

Paragraphs 0213 and 0214 appear under the heading “Advantages”, and are thus alleged advantages of Amberden’s system. Paragraphs 0213 and 0214 were not intended to disclose structural features or method steps per se, and thus any teaching of method steps or structural features in paragraphs 0213 and 0214 is at best implied or taught more clearly elsewhere. The advantages taught in paragraphs 0213 and 0214 are simplification of information storage, reliability, and scalability. Also, Amberden’s APIs manage information access, ownership, and protection. The API handles type and structure, which simplifies search and retrieval. However, there is no discussion in disclosure or suggestion in paragraphs 0213 and 0214 (whether taken alone or in combination with paragraphs 0189 and 0190) of “events”, “receiving events”, “sending information”, a “mapping”, or “network devices”. Additionally, paragraphs 0189, 0190, 0213, and 0214,

discuss “searching” and “retrieval”, which are very different activities than the “receiving events” or the “sending information” recited in claim 1.

For all of the above Reasons, the rejections of claims 1 and 21-24 are unsupported, and should be withdrawn. Reconsideration is respectfully requested.

B. INDEPENDENT CLAIM 21

Independent claim 21 recites

receiving a subscribe request from the router that includes a router identifier that uniquely identifies the router and an event identifier;

The Office Action cites paragraphs 0143, 0153, and 0155 in addition to paragraphs 0148 and 0149, cited with respect to claims 1 and 22-24. As discussed above, paragraphs 0148 and 0149 do not disclose a device identifier and therefore also do not disclose a “router identifier”. Similarly, paragraphs 0148 and 0149 do not mention a “subscribe request” or an “event identifier”.

Paragraph 0143 also fails to support the Office Action. Paragraph 0143 states that the repository of Amberden includes an API, a database or an RDBM, and a file repository, which may be a directory on a server computer. However, paragraph 0143 does not disclose a “router identifier”, “subscribe request” or an “event identifier”.

Paragraph 0153 is entitled, “Identification Group”, and as explained in paragraph 0152, discussed above, is a group of table fields. The identification group includes a stream identifier. However, the stream identifier is not a device identifier or an event identifier, because a stream identifier identifies a “stream record or entry” in a table. In contrast, a device identifier identifies a device and an event identifier identifies an event.

Paragraph 0153 does not discuss “events”, network devices, “routers”, or their “identifiers”.

Paragraph 0155 is entitled, “Ownership Group”, and as explained in paragraph 0152, discussed above, is a group of table fields. The ownership group includes OrgID, WorkspaceID, OwnerID, and AuthorID fields, which are the StreamID of the owning organization, the StreamID of the owning Workspace, the StreamID of the person who created a stream entry, and the StreamID of the organization, person, or workspace who owns a stream, respectively. However, as explained regarding paragraph 0153, the stream identifier (or StreamID) is not a device identifier or an event identifier, because a stream identifier identifies a “stream record or entry” in a table. In contrast a device identifier identifies a device and an event identifier identifies an event. Paragraph 0155 also does not discuss “events”, network devices, “routers”, or their “identifiers”.

Claim 21 recites, “looking up the router identifier and the event identifier in the mapping”, regarding which the Office Action recites paragraph 0213. As discussed above, paragraph 0213 does not discuss “events”. Similarly, paragraph 0213 does not disclose “event identifiers”, “router identifiers” or “looking up” event identifiers and router identifiers in a mapping.

Claim 21 also recites

receiving a subject list in response thereto, wherein the subject list identifies all subjects to which the router should subscribe;

Regarding this paragraph, the Office Action cites paragraph 0213 and 0214, which are discussed above. Paragraphs 0213 and 0214 do not disclose a “router” or a “list of events” to which a router should subscribe (a subject list), and therefore paragraphs 0213 and 0214 do not disclose, “receiving a subject list”.

Claim 21 recites,

sending information to the event bus that requests the event bus to subscribe the router to all events in the subject list.

Regarding this paragraph, the Office Action cites paragraphs 0213, 0214, and 0227.

Paragraphs 0213 and 0214, discussed above, do not disclose an “event bus”, a “router”, a “subject list”, or “sending information”. At best paragraphs 0213 and 0214 discuss searching for and retrieving information instead of the claimed “sending information”.

Paragraph 0227 begins the description of a portal, which is a private workspace on the web. Portals may be used to share information. Users may upload information to, download information from, or save information in a portal. However, a portal is not an “event bus”, and is not disclosed to have any subscription capabilities. Thus, there is no disclosure or suggestion in paragraph 0227 whether taken alone or in combination with paragraphs 0213 and 0214 of “sending information to the event bus that requests the event bus to subscribe the router to all events in the subject list”.

C. DEPENDENT CLAIMS 2-20

Neither the official notice taken nor Hayes is relied upon for the deficiencies pointed out above. Additionally, each of claims 2-20 depends upon one of independent claims 1, 21-24 and is patentable for at least the same reasons. Each of claims 2-20 contain subject matter that is separately patentable from claims 1 and 21-24. For example, regarding claims 12-14, Hayes is also unrelated to a method of subscribing a device to an event and the subject matter of claims 12-14. However, in view of the deficiencies of Amberden claims 2-20 will not be separately argued, at this time, in order to expedite the prosecution.

D. NEW CLAIMS

New claims 25-43 are computer-readable media claims and new claims 44-63 are apparatus claims corresponding to method claims 2-20, respectively. Therefore, claims 24-63 are patentable for the same reasons as claims 2-20. Claim 64 is for a network. Claim 64 depends upon claim 1, and is therefore patentable for at least the same reason. Claim 65 recites the API disclosed in conjunction with the method of creating a subscription, which is not disclosed in the art relied upon by the Office Action in rejection claims 1-24.

V. CONCLUSION

For the reasons set forth above, all pending claims are patentable over the art of record. Accordingly, allowance of all claims is hereby respectfully solicited.

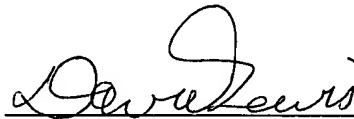
The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

No extension fee is believed to be due. However, to the extent necessary, Applicants petition for an extension of time under 37 C.F.R. § 1.136. The Commissioner is authorized to charge any fee that may be due in relation to this application to our Deposit Account No. 50-1302.

Respectfully submitted,

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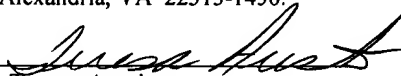
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on

June 9, 2004

by


Teresa Austin



Title: METHOD AND APPARATUS FOR MAPPING NETWORK
EVENTS TO NAMES OF NETWORK DEVICES

Inventor(s): Andrew G. Harvey, et al.

Serial No. 09/783,770 Filed: April 14, 2001

Docket No. 50325-0509 Date of Deposit: June 9, 2004

ANNOTATED SHEET SHOWING CHANGES

Fig. 1B

